

# PATIENTS' EXPERIENCES REGARDING SLEEP HYGIENE IN DUTCH TEACHING HOSPITALS: A CROSS-SECTIONAL QUESTIONNAIRE STUDY

## Background

Adequate sleep is important for hospitalized patients as they are either ill or recovering from treatment. However, sleep hygiene in hospitals falls short due to frequent sleep interruptions [1]. There is a lack of knowledge about sleep hygiene in hospitalized patients [2].

## Aim(s)

The aim of this study is to identify the sleep hygiene experienced by patients in tertiary medical teaching hospitals in the Netherlands.

## Methods

Participants were recruited from six Dutch tertiary medical teaching hospitals between August and December 2021. Eligible patients completed the Dutch version of the VSH and the FISQ, consisting of 15 and 28 items, respectively. Multiple regression analysis was used to test the influence of demographic factors on sleep hygiene and One Sample T-Test was used to quantify mean sleep hygiene scores. To validate the Dutch questionnaires, the criteria of the COnsensus-based Standards for selection of health Measurement INstruments (COSMIN) were followed. We conducted a forward backward translation followed by an Exploratory Factor Analysis and Confirmatory Factor Analysis to establish the validity of both questionnaires.

## Results

A total of 697 respondents completed the questionnaires. Most participants were between 50 and 74 years old, and of all participants, 51.8% were male and 70.7% had spent four nights or more in a multi-occupancy room. Seventeen percent of the respondents (n=119) indicated that they had established sleep rituals at home such as reading or meditating. Over 51% of the respondents reported sleeping worse than at home. Furthermore, respondents' sleep duration was 1.5 hours shorter during hospital admission. The most commonly reported sleep disturbing factors were bed comfort, pain, ventilation system, patient noise and equipment alarms. The preliminary results of the validation analysis are promising for the appropriateness of the questionnaires in the studied population.

## Discussion

This study demonstrates that patients admitted in general wards in Dutch hospitals experience disturbed sleep. Yet, it should be taken into account that the study population included a considerable number of elderly patients, who are known to experience regular sleep interruptions [3]. Moreover, patients often have their own sleep rituals and behaviors at home for which there is little or no room for in general wards. Our results confirm earlier studies, which reported that hospitalized patients sleep on average 1.5 hours less than at home [2]. Sleep hygiene is suboptimal, due to environmental factors such as equipment or traffic noise, which is often unavoidable due to the location of the room or hospital. All aforementioned indicates that patients' sleep in general wards is suboptimal.

## Implications and future perspectives

The results of this study demonstrate the importance of taking sleep hygiene into account when building a new hospital. In addition, nurses should pay attention to sleep hygiene when taking the anamnesis and take measures to ensure patients' uninterrupted sleep, such as administering pain relief, improving the comfort of the bed or avoiding unnecessary postoperative checks. In addition, delaying early morning nursing rounds, combined with non-pharmacological interventions such as sleep hygiene training for nurses and routine distribution of earplugs and sleep masks, may be useful as a sleep-promoting intervention [4;5].

Furthermore, the implementation of a non-pharmacological sleep hygiene protocol may contribute to patients' sleep perception [6].

## References

1. Wesselius et al., 178:1201-1208, 2018
2. Irish et al., 22:23-36, 2015
3. Feinsilver, 37(3):377-386, 2021
4. Burger et al, 45:1-10, 2022.
5. Khoddam et al, 30:100-107, 2022.
6. Van den Ende et al., 5(9):e2232623, 2022